

Draft
Stationary Source Subcommittee
Emissions of Diesel-Fired Engines as Reported
in the 1996 Criteria Pollutant Emissions Inventory
March 12, 1999

<u>Category</u>	<u>Number of Companies</u>	<u>PM10 Emissions (TPY)</u>
Airports and Harbors Facilities	29	11
Agricultural Irrigation (area source)	UNK	3
Construction Activities (total emissions)	51	32
• Dredging	9	8
• Portable Applications	19	12
Manufacturing Facilities (total emissions)	172	37
• Petroleum Refining	13	7
• Portable Applications	13	5
Military Facilities	40	42
Mining Activities	86	91
Hospitals, Prisons, and Commercial facilities	118	6
Oil Production	63	22
• Drilling	15	8
Power Plants	57	51
Sales of Goods or Providing Services (Total Emissions)	112	32
• Portable Applications	14	9
Water Treatment/Solid Waste Facilities	108	32
Total for Diesel-fired Engines for Point Sources	836 facilities	359 TPY
Total for unspecified area sources		<u>257</u> TPY
Total for Stationary Sources		616 TPY

Staff Assessment of Criteria Emission Inventory

Background

- Point Source includes stationary sources that have emissions of at least one criteria pollutant in excess of 10 tons per year (TPY)
- PM10 emission estimates are for internal combustion engines using diesel or jet fuel and gas turbines that intermittently used diesel
- Area Sources
 - irrigation pumps for San Joaquin Valley Unified Air Pollution Control District (APCD) and Santa Barbara County APCD
 - unspecified area sources would include engine emissions that are at stationary sources that emit less than the 10 TPY threshold or are portable
- Portable engines may also be included in off-road area source categories

Findings

- Few diesel-fired engines are operated in prime mode
 - The largest sources operate at islands and staff proposes to consider these sources in a separate category
- Staff is proposing to exclude engines operated in the OCS from review because of the distance of these sources from receptors. This will be reflected in the revised inventory.
- Some diesel-fueled trucks that stay at a stationary source at all times may been included in the inventory of the stationary source. These emissions should not be included in the inventory for stationary sources.
- PM10 emissions were not reported for many engines in the 1996 inventory. Staff estimated PM10 emissions from diesel-fired IC engines by using the ratio of PM10 to NOX from U.S. Environmental Protection Agency's Compilation of Air Pollution Emission Estimates for a naturally aspirated diesel-fueled IC engine.

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Emissions of Diesel-Fired Engines as Reported
in the 1996 Criteria Pollutant Emissions Inventory,
with Modifications
March 12, 1999

<u>Category</u>	<u>Number of Companies</u>	<u>PM10 Emissions¹ (TPY)</u>
Airports and Harbors Facilities	29	11
Agricultural Irrigation (area source)	UNK	3
Construction Activities (total emissions)	51	34
• Dredging	9	9
• Portable Applications	19	12
Manufacturing Facilities (total emissions)	170	37
• Petroleum Refining	13	7
• Portable Applications	13	5
Military Facilities ²	38	26
Mining Activities ³	84	68
Hospitals, Prisons, and Commercial facilities	118	8
Oil Production ²	43	16
• Drilling	15	8
Power Plants ²	56	17
Sales of Goods or Providing Services (Total Emissions)	112	33
• Portable Applications	14	9
Water Treatment/Solid Waste Facilities	108	33
Total for Diesel-fired Engines for Point Sources	809 facilities	287 TPY
Total for unspecified area sources		<u>257</u> TPY
Total for Stationary Sources		544 TPY

¹ For engines that only had NOx emissions reported, PM10 emissions were estimated based upon a ratio of NOx to PM10 emissions (emission factors used were from AP-42)

² Emissions from facilities located within the OCS are not included

³ Mobile related emissions are not included

Draft
Stationary Source Subcommittee
Emissions from Gas Turbines firing Diesel
as Reported in the 1996 Emissions Inventory,
with Modifications
March 12, 1999

<u>Category</u>	<u>Number of Companies</u>	<u>PM10 Emissions⁴ (TPY)</u>
Airport	1	0.3
Manufacturing (total emissions)	16	15.1
• Petroleum Refining	1	1.4
• Turbine Testing	3	2.9
Military Facilities	3	2.4
Mining	1	0.2
Hospitals, Prisons, and Commercial facilities	4	0.1
Oil Production ⁵	1	0.03
Power Plants	24	13.3
Water Treatment	1	0.1
Total for Diesel-fired Engines for Point Sources	51 facilities	31.5 tpy

⁴ For point sources that only reported NOx emissions for the engine, PM10 emissions were estimated based upon information provided by the military.

⁵ Emissions from facilities located in OCS were not included in stationary engine emission inventory.